

INTERNATIONAL SEARCH REPORT

IB2004/052134

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H02M3/158 H02M3/07

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 H02M H03M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, COMPENDEX

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 751 139 A (HACK THOMAS PETER ET AL) 12 May 1998 (1998-05-12)	1,7,8
Y	column 2, line 56 - column 3, line 11; figures 1,10,11	2-6,9,10
Y	KUWABARA K ET AL: "Switched-capacitor DC-DC converters" INTELEC. TENTH INTERNATIONAL TELECOMMUNICATION ENERGY CONFERENCE, 30 October 1988 (1988-10-30), pages 213-218, XP010078359 NEW YORK Table 1: Voltage polarity inverting converter ----- -/--	2-4

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
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- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the International search

17 January 2005

Date of mailing of the International search report

01/02/2005

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 245 524 A (NAKAGAWA SHINICHI ET AL) 14 September 1993 (1993-09-14) column 1, line 6 - column 2, line 7; figures 1-5 -----	4
Y	US 5 617 015 A (GODER DIMITRY ET AL) 1 April 1997 (1997-04-01) column 7, line 28 - column 7, line 31; figure 5a -----	5,6
Y	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 12, 5 December 2003 (2003-12-05) -& JP 2003 256052 A (SHARP CORP), 10 September 2003 (2003-09-10) paragraph '0002! -----	9,10
A	US 6 075 295 A (LI THOMAS) 13 June 2000 (2000-06-13) -----	
A	US 6 222 351 B1 (FRATTINI GIOVANNI ET AL) 24 April 2001 (2001-04-24) -----	

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US 5751139	A	12-05-1998	CA	2283995 A1	17-09-1998
			EP	1018065 A1	12-07-2000
			JP	2001514840 T	11-09-2001
			WO	9840802 A1	17-09-1998
US 5245524	A	14-09-1993	JP	2938958 B2	25-08-1999
			JP	4168971 A	17-06-1992
			CA	2054543 A1	01-05-1992
US 5617015	A	01-04-1997	NONE		
JP 2003256052	A	10-09-2003	NONE		
US 6075295	A	13-06-2000	NONE		
US 6222351	B1	24-04-2001	IT	MI990093 A1	20-07-2000